

## CLAIMS

What is claimed is:

1. A four-color ink set, comprising:
  - a cyan ink that prints, as measured on a reference substrate, with CIELAB colorimetric aim values of  $L^* = 54$ ,  $a^* = -41$ , and  $b^* = -45$ , within a  $\Delta E^*_{ab} \leq 8$ ;
  - a magenta ink that prints, as measured on the reference substrate, with CIELAB colorimetric aim values of  $L^* = 52$ ,  $a^* = 79$ , and  $b^* = -9$ , within a  $\Delta E^*_{ab} \leq 8$ ;
  - a yellow ink that prints, as measured on the reference substrate, with CIELAB colorimetric aim values of  $L^* = 90$ ,  $a^* = -7$ , and  $b^* = 102$ , within a  $\Delta E^*_{ab} \leq 10$ ;
  - and a black ink.
2. A four-color ink set according to claim 1, wherein the inks have Status T optical densities of about 1.5 for the cyan ink, about 1.5 for the magenta ink, and about 1.15 for the yellow ink.
3. A four-color ink set according to claim 1, wherein the inks are heat set inks.
4. A four-color ink set according to claim 1, wherein the inks are cold set inks.

5. A four-color ink set according to claim 1, wherein one or more of the inks comprise one or more fluorescent materials.
6. A method of printing a color image, comprising  
providing a color separation of the image based on a four-color ink set comprising:
  - a cyan ink that prints, as measured on a reference substrate, with CIELAB colorimetric aim values of  $L^* = 54$ ,  $a^* = -41$ , and  $b^* = -45$ , within a  $\Delta E^*_{ab} \leq 8$ ;
  - a magenta ink that prints, as measured on the reference substrate, with CIELAB colorimetric aim values of  $L^* = 52$ ,  $a^* = 79$ , and  $b^* = -9$ , within a  $\Delta E^*_{ab} \leq 8$ ;
  - a yellow ink that prints, as measured on the reference substrate, with CIELAB colorimetric aim values of  $L^* = 90$ ,  $a^* = -7$ , and  $b^* = 102$ , within a  $\Delta E^*_{ab} \leq 10$ ;
  - and a black ink,and printing the color image with the four-color ink set according to the color separation.
7. A method according to claim 6, wherein the step of providing a color separation of the image based on the four-color ink set comprises a step of applying a color profile in the color separation process.

8. A method according to claim 7, wherein the color profile is a profile on a substrate on which the color image is printed.
9. A method according to claim 7, wherein the color profile is obtained by printing a color target using the same press conditions that are used to print the color image.
10. A method according to claim 6, wherein the printing step comprises printing by a lithographic, flexographic, gravure, or digital printing process.
11. A method according to claim 6, wherein the printing step comprises sheet fed printing.
12. A method according to claim 6, wherein the printing step comprises web printing.
13. A method according to claim 6, wherein the color image comprises a color that cannot be obtained using a standard SWOP ink set but that is within the color gamut of the four-color ink set.

14. A four-color ink set, comprising a cyan ink, a magenta ink, a yellow ink, and a black ink, wherein the ink set comprises at least one member selected from the group consisting of:

a cyan ink that prints, as measured on a reference substrate, with CIELAB colorimetric aim values of  $L^* = 54$ ,  $a^* = -41$ , and  $b^* = -45$ , within a  $\Delta E^*_{ab} \leq 8$ ,

a magenta ink prints, as measured on a reference substrate, with CIELAB colorimetric aim values of  $L^* = 52$ ,  $a^* = 79$ , and  $b^* = -9$ , within a  $\Delta E^*_{ab} \leq 8$ , and

a yellow ink prints, as measured on a reference substrate, with CIELAB colorimetric aim values of  $L^* = 90$ ,  $a^* = -7$ , and  $b^* = 102$ , within a  $\Delta E^*_{ab} \leq 10$ .

15. A four-color ink set according to claim 1, wherein the four-color ink set has an increase in color gamut area over the SWOP four-color ink set of about 20% or more, as measured on a CIELAB Diagram.

16. A four-color ink set according to claim 1, wherein the four-color ink set has an increase in color gamut area over the SWOP four-color ink set of about 25% or more, as measured on a CIELAB Diagram.

17. A four-color ink set according to claim 1, wherein the four-color ink set has a color gamut area at least about 85% of the color gamut area available with the Hexachrome ink set, as measured on a CIELAB Diagram..

18. A four-color ink set according to claim 1, wherein the four-color ink set has a color gamut area at least about 88% of the color gamut area available with the Hexachrome ink set, as measured on a CIELAB Diagram..

19. A four-color ink set according to claim 1, wherein the four-color ink set has a color gamut area of from about 85% to about 90% of the color gamut area available with the Hexachrome ink set, as measured on a CIELAB Diagram..